

file



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. | | | | |
|---|--------------|----------------------|--|------------------|--------------|-------------------|--|--|
| 09/653,241 | 08/31/2000 | Gregory L. Slaughter | 5181-67100 | 4521 | | | | |
| 7590 | 08/26/2004 | | <table border="1"><tr><td>EXAMINER</td></tr><tr><td>LEZAK, ARRIENNE M</td></tr></table> | | EXAMINER | LEZAK, ARRIENNE M | | |
| EXAMINER | | | | | | | | |
| LEZAK, ARRIENNE M | | | | | | | | |
| Robert C Kowert Conley Rose & Tayon PC P O Box 398 Austin, TX 78767-0398 | | | <table border="1"><tr><td>ART UNIT</td><td>PAPER NUMBER</td></tr><tr><td>2143</td><td></td></tr></table> | ART UNIT | PAPER NUMBER | 2143 | | |
| ART UNIT | PAPER NUMBER | | | | | | | |
| 2143 | | | | | | | | |
| DATE MAILED: 08/26/2004 | | | | | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|---|--|
| Office Action Summary | Application No. 09/653,241 | Applicant(s) SLAUGHTER ET AL. | |
| | Examiner Arrienne M. Lezak | Art Unit 2143 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>8/16/01 & 9/17/01</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. Examiner notes that no Claims have been amended, cancelled or added. Claims not explicitly addressed herein are found to be addressed within the prior Office Action dated 5 February 2004 as reiterated herein below.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 12 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent 5,963,947 to Lehman. Regarding Claims 1, 12 and 23, Lehman ('947) discloses a method, system and carrier medium comprising:

Accessing a first space, wherein the first space comprises a first network-addressable storage location, wherein information usable to access the first space is provided in an advertisement for the first space, wherein the advertisement for the first space comprises a first schema, and wherein the first schema specifies one or more messages usable to invoke functions of the first space, (Col. 9, lines 34-40);

A requesting client requesting creation of a second space by sending to the first space one of the messages specified by the first schema, (Col. 9, lines 34-46);
Creating the second space in response to the requesting client requesting creation of the second space, wherein the second space is initially configured to permit access only to the requesting client, wherein the second space comprises a second network-addressable storage location, wherein information usable to access the second space is provided in an advertisement for the second space, wherein the advertisement for the second space comprises a second schema, and wherein the second schema specifies one or more messages usable to invoke functions of the second space, (Col. 9, lines 43-46); and
The requesting client accessing the second space by sending to the second space one of the messages specified by the second schema, (Col. 9, lines 43-46).

4. Therefore, this reference may be read to teach or describe every element or claim limitation of Claims 1, 12 and 23.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 5-12, 16-23 and 27-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,974,420 to Lehman in view of US Patent 5,963,947 to Lehman.

7. Regarding Claims 1, 5, 9-12, 16, 20-23, 27 and 31-33, Lehman ('420) discloses a method, system and carrier medium comprising:

Accessing a first space, wherein the first space comprises a first network-addressable storage location, wherein information usable to access the first space is provided in an advertisement for the first space;

A requesting client requesting creation of a second space; and

Creating the second space in response to the requesting client requesting creation of the second space, wherein the second space is initially configured to permit access only to the requesting client, wherein the second space comprises a second network-addressable storage location, wherein information usable to access the second space is provided in an advertisement for the second space, (Col.8, lines 61-67 and Col. 9, lines 1-48).

8. While Lehman ('420) does disclose the fact that different computer programming languages could be substituted for those described, (Col. 9, lines 10-14), Lehman ('420) does not disclose the specific use of XML with TSpaces, nor does Lehman ('420) specifically disclose the invocation of functionalities from Claims 1, 5, 9-12, 16, 20-23, 27 and 31-33:

a first address space, wherein the advertisement for the first space comprises a first schema, and wherein the first schema specifies one or more messages usable to invoke functions of the first space;

a requesting client requesting creation of a second space by specifically sending to the first space one of the messages specified by the first schema;

a second client, wherein the advertisement for the second space comprises a second schema, and wherein the second schema specifies one or more messages usable to invoke functions of the second space; and

a requesting client accessing the second space by sending to the second space one of the messages specified by the second schema.

9. Lehman ('947) discloses the specific use of TSpaces, which dynamically invoke functionalities, (Col. 9, lines 34-46). To add an aspect of optional functionalities to the Lehman ('420) TSpaces would have been obvious to one of ordinary skill in the art at the time of invention by Applicant, as the TSpace provides a powerful mechanism for inter-process communication and synchronization. As noted within Lehman ('420), such a mechanism is the crux of parallel and distributed processing, (Col. 2, lines 3-11). Further, such a mechanism would obviously include functions for communication and synchronization.

10. To combine XML with TSpaces would have been obvious to one of ordinary skill in the art at the time of invention by Applicant as noted within Lehman ('420). The motivation to combine the XML with TSpaces is noted within Lehman ('420) wherein the use of different computer languages is recognized as possible, (Col. 9, lines 10-14).

Further, as XML was in existence at the time of invention by Applicant, the use of the same as a programming language would have been obvious. Therefore, Claims 1, 5, 9-12, 16, 20-23, 27 and 31-33 are unpatentable over the combined teachings of Lehman ('420) in view of Lehman ('947).

11. Claims 7, 8, 18, 19, 29 and 30 are also rejected on the basis that Lehman ('420) teaches the use of different computer languages, (Col. 9, lines 10-14), and as noted herein above. Therefore, Claims 7, 8, 18, 19, 29 and 30 are also unpatentable over the combined teachings of Lehman ('420) in view of Lehman ('947).

12. Regarding Claims 6, 17 and 28, further consideration of Lehman ('420) in view of Lehman ('947) implies the need for a means of distinguishing one operator location from another. The use of Uniform Resource Identifiers (URI), (Lehman ('420) – Col. 5, lines 12-23), for this purpose would have been obvious to one of ordinary skill in the art at the time of invention by Applicant as an obvious means by which operator locations are defined. The motivation to use URIs is noted within both Lehman patents, within the claims, which note the receipt of information at the respective operators. In order to receive information, the operators would inherently need a means by which to be located, and thus the use of URIs is inherent and obvious. Therefore, Claims 6, 17 and 28 are also unpatentable over the combined teachings of Lehman ('420) in view of Lehman ('947).

13. Claims 2-4, 13-15 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,974,420 to Lehman in view of US Patent Pub. US

2002/0133412 A1 to Oliver. Lehman ('420) and Lehman ('947) are relied upon for their teachings as noted herein above.

14. Regarding Claims 2, 13 and 24, although Lehman ('420) discloses a security means, (Col. 9, lines 3-8), Lehman ('420) does not specifically teach the use of Authentication root tokens. Oliver ('412) teaches creating a root authentication token and initializing that authentication service whereby the root authentication token is needed for client access, (Oliver – paragraph ## 0125, 0126, 0368-0373 and Claim 1 (a-f)).

15. To incorporate the specific security means of an authentication token into the Lehman ('420) TSpace information operator would have been obvious to one of ordinary skill in the art at the time of invention by Applicant as the use of Tspaces, (generally and within Lehman ('420)), includes a form of access control security means. Therefore, Claims 2, 13 and 24 are unpatentable over the combined teachings of Lehman ('420) in view of Oliver ('412).

16. Regarding Claims 3, 4, 14, 15, 25 and 26, these claims are also rejected in light of the teachings and motivation of Claims 1, 2, 12, 13, 23 and 24 as disclosed herein above as they refer to the use and manipulation of security measures including, but not limited to, authentication means. As noted above, relative to Claims 2, 13 and 24, the Tspaces include an access control feature. Therefore, Claims 3, 14 and 25 are also unpatentable over the combined teachings of Lehman ('420) in view of Oliver ('412).

17. Claims 1-33 are further rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,974,420 to Lehman in view of US Patent 5,963,947 to Lehman and in

further view of "IBM Systems Journal, Volume 37, No. 3" by Wyckoff, McLaughry, Lehman and Ford, 1998. Lehman ('420) and Lehman ('947) are relied upon for their teachings as noted herein above.

18. As noted above Lehman ('420) and Lehman ('947) disclose every claim limitation with the exception of the incorporation of XML, (which as noted above, would have been obvious), and the inclusion of a security means. The Wyckoff IBM Systems Journal entry specifically enumerates the salient features of the TSpace system, among which are access controls which may include, but are not limited to security policies, (Wyckoff – P.7, "Tspaces overview section"). Such security policies would include those specifically enumerated by Applicant, as noted herein above. Thus, Claims 1-33 are further unpatentable over the combined teachings of Lehman ('420) in view of Lehman ('947) and in further view of Wyckoff et al.

Response to Arguments

19. Applicant's arguments filed 3 May 2004, have been fully considered but they are not persuasive. Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections. Moreover, Examiner notes that Applicant's claims have been written so broadly that any monitoring system, including that enumerated within Kittaka, may be mad to read upon them.

20. In response to applicant's argument that Ford and Lehman in combination do not disclose "advertising", the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

21. Ford discloses the notion of T-Spaces, which is a general mechanism for interprocess communication. Specifically, a process that runs on a machine, on a network, places information of any sort that is intended to be read by another process on a machine, on the same network (Ford - Col. 3, lines 33-63). In fact, if no other process is to read this information, there would be no reason to place the data in a T-Space in the first place. Further note that the intent to be read is further corroborated by the query facility in Ford, (Ford - Col. 4, lines 66-67 & Col. 5, lines 1-3). A process that is actively querying the T-Space is most certainly looking for information that meets particular criteria, specifically the criteria embodied in the query. In other words, Ford discloses that the ability to access the information in the T-Space is exposed programmatically. By way of comparison, Examiner notes that advertising is described in Applicant's specification as the storing of data in a repository (Specification: p. 13, lines 10-15) and may potentially expose the data in the repository programmatically, (Specification: p. 13, lines 15-20). Since the limitations of a data repository are met by a T-Space and a means to expose the data in the repository are

met by the T-Space query facility, under MPEP 2111.01 (Plain Meaning), T-Spaces are broadly read to encompass advertisements.

22. Applicant argues that Ford teaches away from schemas. Examiner points out that there are two kinds of schemas in the scope of the examination of the pending application. One schema is the schema of the data repository itself. This type of schema, for example, in a relational database, may be conceptualized through an Entity Relationship Diagram. In other words, this schema describes the tables and the relationships between the tables themselves. The second schema is the schema of the metadata that describes a service to be advertised. This type of schema, may be represented in many formats, including XML. In other words, this schema describes the data layout of a particular record. The schema that Ford teaches away from, is of the former type, i.e. in order to allow for the generic storage of information, no particular table and table relationship is posited. It is precisely because T-Spaces do not posit a particular table layout, that the format of the tuples it stores and the types of data it contains is not restricted. To be specific, this is exactly the reason why an XML file may be stored in a T-Space. The fact that an XML file has a schema of its own, is completely irrelevant to the T-Space itself. So in fact, Applicant's reference of Ford, (Col. 4, lines 27-33), actually teaches towards the storing of XML.

23. Regarding Applicant's argument that operators are commands and not locations, Examiner notes that any command inherently requires a location for performance of the same, as it would be useless to have commands without a means for executing them, which means obviously require the ability to locate the same.

24. In response to Applicant's argument that Lehman and Ford, (and Oliver), do not teach the use of URIs and authentication tokens, Examiner notes that the same is noted specifically within Lehman as noted above. Further, as Lehman teaches access control in addition to the use of URIs as a key, (and Oliver teaches authentication tokens), passing of a URI between users, (as a key/authentication token), would have been obvious as noted above. Moreover, as Lehman teaches T-Spaces, (which include an access control functionality), security policy modification would be obvious in view of the same. Regarding URI: Clearly the context of Ford and Lehman are via Internet communications. Internet communications by definition locate resources via URI/URL. Without such locators, the communications would not be via the Internet. Thus, it would have been inherent and obvious to use URI/URLs within the context of Ford and Lehman. Regarding Authentication Tokens: Clearly both Ford and Lehman teach the use of keys in the form of IDs. Clearly Oliver offers a token as a means of information transfer in the course of identification and authentication. A person having ordinary skill in the art, faced with the problem of transferring IDs would have been motivated to use a information transfer mechanism, such as the tokens of Oliver to transfer the keys of Ford and Lehman, in order to prevent tampering of the IDs. In other words, examiner is not suggesting, as applicant asserts, that the authentication token has the same contents as the TVS application disclosed by Oliver, but rather that the mechanism be used, with the data of Ford and Lehman substituted in.

25. Regarding Applicant's argument that a programming language has no bearing on a schema as expressed in a data representation language, Examiner acknowledges

that there is a distinction between describing an algorithm vs. describing a data layout. To borrow from database parlance the distinction is between a Data Manipulation Language (DML) vs. a Data Definition Language (DDL). Nonetheless, many languages incorporate both. In fact, SQL itself consists of both DML (select, insert, delete statements etc.) and DDL (create table, create procedure, etc.). Although XML may be stored statically, i.e. initially starting as file, bear in mind that XML may also be generated dynamically, i.e. as a result of an algorithm executing. Java has a long and well-known history of integration with XML.

26. Thus, as Examiner has completely addressed Applicant's amendment, and finding Applicant's arguments do not show how reconsideration avoids such references or objections, Examiner hereby maintains the original rejection of all claims in their entirety.

27. Examiner notes the resubmission of the August 16, 2001 & September 17, 2001 PTO-1449 forms and thanks Applicant for the same.

28. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

29. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arrienne M. Lezak whose telephone number is (703)-305-0717. The examiner can normally be reached on M-F 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (703)-308-5221. The fax phone number for the organization where this application or proceeding is assigned is (703)-305-3718.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-305-6121.

Arrienne M. Lezak
Examiner
Art Unit 2143

AML


DAVID WILEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100